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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,752	02/15/2002	Wolfgang Schuh	Q68488	7584

23373 7590 11/04/2004

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

PARSONS, CHARLES E

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/049,752

Applicant(s)

SCHUH, WOLFGANG

Examiner

Charles E Parsons

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seng.

Claim 1: An automated optical inspections system (10) comprising:

Four CCD cameras (12, 14, 16, 18) spaced from each other and arranged generally north, east south and west at an angle above a generally rectangular area (15) upon which an item to be inspected may be placed. (See column 4 lines 66 and 67 as well as figure 2 an item may be placed on item 1.)

each of said cameras, (12, 14, 16, 18) having an optical axis (20) and a field of view (22), the fields of view being substantially rectangular, (See figure 3 showing fields of view 21-24 as being rectangular)

wherein a width of the field of view is larger than a height of the field of view (Again see figure 3.)

Characterized in that a pair of said cameras (12, 16) are positioned generally opposite each other, each having the width and height of their fields of view (22) generally in the same direction and the width and height of the area (15) (See figure 3 items 21 and 22)

And the other pair of cameras (14, 18) are positioned generally opposite each other and generally perpendicular to the first mentioned pair of cameras, (12, 16 each having a width and height of their field of view generally in the same direction as the height and width of the area respectively. (See figure 3 items 23 and 24.)

Wherein a width of the area (15) is larger than a height of area (15)

See figure 3 showing a rectangular viewing area. While Seng is unclear as to which is the height and which is the width, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to arbitrarily choose a height and width since it would result in the same outcome. Note is that the fields of view of Seng's opposing cameras are orthogonal as required by the claim.

Claim 2: The system according to claim 1 wherein the fields of view of both pairs of said cameras overlap generally at a common area. (See figure 3, the fields of view of cameras 21 and 22 overlap those of 23 and 24.)

Claim 3: The system according claim 1 or 2 wherein the fields of view of said cameras each have a width height ration of about 4/3. (The current specification does not disclose that the claimed ratio is used for any particular purpose, offers an unexpected result, or results in any advantage over the prior art. Therefore it is considered a matter of design choice.

Claim 4: The system according to any of claims 1-3 and further comprising a fifth camera positioned generally atop said generally rectangular area. (See Sheng figure 2 as well as column 4 lines 49-65)

Claim 5: The system according to claim 4 wherein the field of view of said fifth camera overlaps the fields of view of the other cameras generally at a common area. (See column 4 lines 49-65, as well as figure 2, camera 2's field of view overlaps those of the four cameras.)

3. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Seng as applied to claim 4 above, and further in view of Mitsumune.

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Claim 6: The system (10) according to claim 4 wherein said fifth camera (19) comprises an array of cameras (19A, 19B, 19C, 19D), and wherein the combined field of view (22) of the array generally corresponds to said generally rectangular area (15). (While Seng only teaches the use of a single fifth camera, Mitsumune teaches the use of an array of cameras see figure 1. At the time the invention was made it was well known in the art that using an array of cameras improves resolution see Mitsumune column 3 lines 7-11. Therefore it would have been obvious to one of ordinary skill in the art to incorporate the use of an array of cameras into Seng's invention to make the invention as claimed motivated by Mitsumune's above mentioned teaching. Furthermore case law has already established that the duplication of parts for multiple effect is not patentable see St. Regis Paper Co. v. Bemis Co., Inc. 193 USPQ 9, 11 (7th Cir. 1977)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Parsons whose telephone number is 703-305-3862. The examiner can normally be reached on M-TH 7AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CEP


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600